

CLAIMS

What is claimed is:

1. A method for providing a file structure that enables advanced audio manipulation comprising:
  - obtaining a set of waveform data;
  - obtaining a set of Musical Instrument Digital Interface data;
  - obtaining a set of synthesis data;
  - obtaining a set of playback data; and
  - combining said set of waveform data, said set of Musical Instrument Digital Interface data, said set of synthesis data and said set of playback data into a single data repository for storage and exchange of audio data.
2. The method of claim 1 wherein said set of waveform data further comprises at least one track of sample sound data.
3. The method of claim 2 wherein said at least one track of sample sound data further comprises a track of data in WAVE format.
4. The method of claim 2 wherein said at least one track of sample sound data further comprises a track of data in Audio Interchange File format.

5. The method of claim 1 wherein said obtaining said set of waveform data further comprises synthesizing said set of waveform data.

6. The method of claim 1 wherein said obtaining said set of Musical Instrument Digital Interface data further comprises synthesizing said set of Musical Instrument Digital Interface data.

7. The method of claim 1 wherein said obtaining said set of synthesis data further comprises obtaining at least one user-defined synthesis parameter for synthesizing said set of Musical Instrument Digital Interface data.

8. The method of claim 7 wherein said obtaining said at least one user-defined synthesis parameter further comprises obtaining at least one synthesis modification parameter to modify said at least one user-defined synthesis parameter.

9. The method of claim 1 wherein said obtaining said set of playback data further comprises obtaining at least one user-defined playback parameter for rendering said set of Musical Instrument Digital Interface data.

10. The method of claim 9 wherein said obtaining said at least one user-defined playback parameter further comprises obtaining at least one playback modification parameter to modify said at least one user-defined playback parameter.

11. The method of claim 1 wherein said combining further comprise collecting any available data of said set of waveform data, said set of Musical Instrument Digital Interface data, said set of synthesis data and said set of playback.

12. The method of claim 1 wherein said combining further comprises producing at least one data chunk in accordance with the format of Musical Instrument Digital Interface protocols for any of said set of waveform data, said set of Musical Instrument Digital Interface data, said set of synthesis data and said set of playback data.

13. A computer program product configured to execute on a computing device having a processor and memory, said computer program providing a file structure that enables advanced audio manipulation, said computer program having computer program code configured to:

obtain a set of waveform data;

obtain a set of Musical Instrument Digital Interface data;  
obtain a set of synthesis data;  
obtain a set of playback data; and  
combine said set of waveform data, said set of Musical Instrument Digital Interface data, said set of synthesis data and said set of playback data into a single data repository for storage and exchange of audio data.

14. The computer program product of claim 13 wherein said computer program code configured to obtain said set of waveform data further comprises computer program code configured to synthesize said set of waveform data.

15. The computer program product of claim 13 wherein said computer program code configured to obtain said set of Musical Instrument Digital Interface data further comprises computer program code configured to synthesize said set of Musical Instrument Digital Interface data.

16. The computer program product of claim 13 wherein said computer program code configured to obtain said set of synthesis data further comprises computer program code configured to obtain at least one user-defined synthesis parameter for synthesizing said set of Musical Instrument Digital Interface data.

17. The computer program product of claim 16 wherein said computer program code configured to obtain said at least one user-defined synthesis parameter further comprises computer program code configured to obtain at least one synthesis modification parameter to modify said at least one user-defined synthesis parameter.

18. The computer program product of claim 13 wherein said computer program code configured to obtain said set of playback data further comprises obtaining at least one user-defined playback parameter for rendering said set of Musical Instrument Digital Interface data.

19. The computer program product of claim 18 where in said computer program code configured to obtain said at least one user-defined playback parameter further comprises computer program code configured to obtain at least one playback modification parameter to modify said at least one user-defined playback parameter.

20. The computer program product of claim 13 wherein said computer program code configured to combine further comprise computer program code configured to collect any of the available data of said set of waveform data, said

set of Musical Instrument Digital Interface data, said set of synthesis data and said set of playback.

21. The computer program product of claim 13 wherein said computer program code configured to combine further comprises computer program code configured to produce at least one data chunk in accordance with the format of Musical Instrument Digital Interface protocols for any of said set of waveform data, said set of Musical Instrument Digital Interface data, said set of synthesis data and said set of playback data.

22. A method for manipulating audio data comprising:

obtaining an audio manipulation request associated with an audio waveform;

ascertaining whether an audio file comprising said audio waveform also  
5 comprises a set of audio instructions for synthesizing said audio waveform; and  
executing said audio manipulation request using said set of audio  
instructions.

23. The method of claim 22 wherein said audio manipulation request further  
10 comprises a request to modify at least one instruction within said set of audio  
instructions.

24. The method of claim 22 wherein said set of audio instructions further comprises a set of playback parameters.

5 25. An apparatus for manipulating audio data comprising:  
means for obtaining an audio manipulation request associated with an  
audio waveform;  
means for ascertaining whether an audio file comprising said audio  
waveform also comprises a set of audio instructions for synthesizing said audio  
10 waveform; and  
means for executing said audio manipulation request using said set of  
audio instructions.

26. A data structure embedded within a computer readable medium,  
15 comprising :  
sample data associated with an audio waveform; and  
a set of audio instructions configured to synthesize said audio waveform.

27. The data structure of claim 26 wherein said set of audio instructions further  
20 comprises a set of audio synthesis parameters.

28. The data structure of claim 26 wherein said set of audio instructions further comprises a set of audio playback parameters.